



PROJECT SPECIFICATIONS

for the

ANGORA FIRE STRUCTURAL DEBRIS REMOVAL LAKE TAHOE, CALIFORNIA

July 16, 2007

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Version 2.0 – Private Owner Requirements

SUMMARY

Per the Executive Order S-09-07, Office of the Governor of the State of California, the California Integrated Waste Management Board (CIWMB) staff has prepared two structural debris removal plans for the County of El Dorado. This document is the second of two documents that treat the removal of the structural debris as a single organized project. This document is being prepared for home owners who decide to opt out of the state sponsored cleanup process and perform the structure debris removal on their own. The findings, information, and professional opinions are presented in accordance with generally accepted professional engineering methods, waste management strategies, and debris removal as part of natural disasters. Any questions or comments concerning this report should be referred to Mr. Todd Thalhamer at 916.341.6356 or by e-mail at tthalhamer@ciwmb.ca.gov. Mr. Thalhamer is a registered Professional Engineer in the State of California.

Oral communications with the County of El Dorado or CIWMB employees shall be non-binding on the County of El Dorado and the CIWMB and shall in no way exclude the owner or contractor from any obligations as set forth in set of project specifications.

Should an owner or contractor determine a deviation is necessary from this set of specifications, only written correspondence to the County of El Dorado, Environmental Management, attention Virginia Huber will be allowed. Only the County of El Dorado, Environmental Management, in cooperation with the CIWMB will determine if a waiver from the specification is permitted.

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6.0 APPENDICES

Appendix A. Office of the Governor, Executive Order S-09-07

Appendix B. Denial of Right-to-Entry on Private Property

1 Introduction

On July 2, 2007, the Governor of the State of California, Arnold Schwarzenegger, issued executive order S-09-07, which declared a state of emergency in El Dorado County as a result of a wildfire (See Attachment A). This order stated that all State agencies with responsibility, regulatory authority or expertise related to recovery efforts in connection with the Angora fire shall cooperate fully and act expeditiously in coordination with the California Resources and Environmental Protection Agencies (Cal/EPA), to facilitate the mitigation of the effects of the fire and the environmental restoration of the Tahoe Basin.

The order also states the following:

statutes, rules and regulations, as they apply to the removal, storage, transportation and disposal of hazardous and non-hazardous debris resulting from the fire and other requirements related to necessary restoration and related activities (including, but not limited to, solid waste facility permit requirements and conditions, waste discharge requirements for the storage and disposal of fire-related debris, waste discharge requirements for discharges of waste associated with emergency timber harvesting, prohibitions against discharges or threatened discharges of waste in stream environment zones, waste discharge requirements for emergency construction activities, waste discharge requirements and/or Water Quality Certification for discharges of fill material or pollutants) are hereby suspended to the extent necessary for expediting the removal and cleanup of debris from the fire, and for implementing the Angora Fire Resource Damage Assessment and Restoration Plan. The Secretaries for Environmental Protection and Resources shall use sound discretion in applying this suspension to ensure that the suspension of statutes, rules and regulations serves the purpose of accelerating the cleanup and mitigation of environmental harm, and the restoration of infrastructure damaged in the Angora fire while protecting public health and the environment, and shall maintain a public list of all such waivers and suspensions prominently on their websites. To the extent that it is within their administrative authority and discretion, the boards, departments and offices within the California Environmental Protection Agency shall expedite the granting of other authorizations, waivers or permits necessary for the removal, storage, transportation and disposal of hazardous and non-hazardous debris resulting from the fire, and for other actions necessary for the protection of public health and the environment.

Additionally the order stated that State agencies shall work with local officials to design and implement a comprehensive structural debris removal plan that will treat the removal of structural debris as a single organized project.

The objective of this document is to meet the above requirements and design a structural debris removal plan for private owners who opt out of the state sponsored program. Both documents require removal contractors to follow a set of specifications to mitigate known hazards and conditions to limit the impacts to the surrounding public, environment, and the national treasure known as Lake Tahoe.

The California Integrated Waste Management Board (CIWMB) has created these Project Specifications for the Angora Structural Debris Removal Project (ASDRP). Information related to this project was obtained from the Office of the Governor, Angora Incident, El Dorado County, Environmental Management, a review of the San Diego 2003 fires, and past CIWMB debris removals.

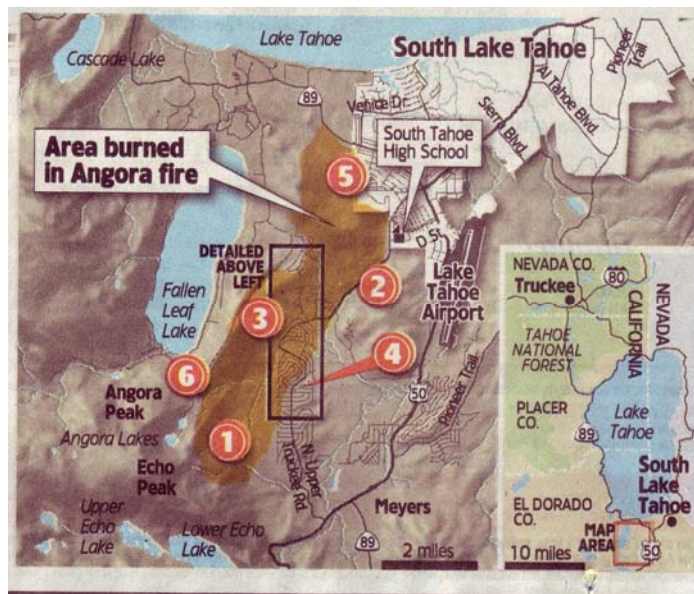
1.1 Site Description

Over 254 structures were destroyed and 17 were damaged during the 3,100 acre Angora Fire. A potential of 75,000 cubic yards of waste and debris have been identified for removal. The sites vary in composition, some contain just foundations, ash and metal debris others are partially burned. This debris removal plan will cover all structural debris from the Angora Fire.

1.2 Vicinity and Site Maps

The Angora structure removal sites are located throughout the North Upper Truckee Road, Lake Tahoe Blvd, Boulder Mountain Road, and Tahoe Mt. Road in South Lake Tahoe, California. Figure 1 provides general location of the impacted area.

Figure 1. Site Location Map (Source Sacramento Bee, July 1, 2007)



1.3 Site Characterization

We know that ash and debris from residential structures that are consumed by wildfires contain concentrated amounts of heavy metals, such as arsenic, barium, beryllium, copper, chromium, cadmium, lead and zinc. This concentration of metals has been demonstrated in the Assessment of Burned Debris Report for the Cedar and Paradise Fires, San Diego County, California, December 2003.

Per the Office of the Governor, executive order S-09-07, all the ash and debris may be transported to a local facility as long as the facility accepts the material. The County of El Dorado has selected two facilities in Nevada for the ash and debris and other facility for the metal and concrete. In order to protect public health and the environment and to ensure all the waste from the Angora Fire is properly tracked, all debris (e.g., ash, metal, concrete, other site wastes) **shall be properly contained, transported and disposed by South Lake Tahoe Refuse**. The owner/CONTRACTOR is responsible for setting up an account at South Tahoe Refuse Inc. The contact at South Tahoe Refuse Inc. for the Angora Debris Project is Jeanne Lear at 530.542.8366 or e-mail at jlear@southtahoerefuse.com.

It is intended that the metal debris and concrete will be recycled to the extent as feasibly possible. Table 1 provides an estimated range of cubic yards of material per house.

Table 1. Estimated Debris per Home Site to be Transported to an Appropriate Facility

MATERIAL	Cubic Yards
Ash	10 to 50
Concrete Debris (Recycle)	20 to 50
Fire Place and Brick	5 to 50
Metal Debris (Recycle)	5 to 25
Other Debris	0 to 100

1.4 Known Hazards

Depending on how much of the structure is present, the known hazards will vary. If just ash, the removal site will contain elevated level of heavy metals. All home sites located where burned trees will pose a fall hazard. Unstable chimneys will also be an extreme fall hazard. There is also a physical hazard (i.e., slips, trips, falls) from exposed glass and metals and unstable chimneys. Additionally the weather will also pose hazards from flash flood to lightning and high winds. Other hazardous material or medical wastes may be discovered during the removal. Utilities, such as electrical, gas, cable, telephone, and sewer, are present and need to be accounted for while removing the debris.

2 Removal Tasks and Specifications

In order to begin the removal of structural debris related to the Angora Fire from private property, the owner must sign the Denial of Right-to-Entry, obtain the necessary permits and complete the necessary site documentation. Once these tasks are completed the fire related debris can be removed.

To understand what tasks are required to remove the fire related debris the following tasks for a CONTRACTOR are presented.

- The CONTRACTOR will first inspect the site and evaluate the hazards. The CONTRACTOR will develop a work plan, health and safety plan, and obtain the necessary permits (See Table 3 below). The CONTRACTOR will document the site hazards in written form and communicate these hazards to their work crews;
- The CONTRACTOR will install the necessary emergency erosion control to prevent the immediate issues with rainfall associated with thunderstorms;
- The CONTRACTOR will contact El Dorado County Building Department and coordinate a foundation investigation. The purpose of the investigation is to determine the previous square footage of the home. The CONTRACTOR will be responsible for providing the measurement to the County.
- The CONTRACTOR will begin work on the destroyed home site(s). The CONTRACTOR will first determine if the chimney poses a safety risk. If a risk is determine the chimney will be taken down with proper dust control. The CONTRACTOR will next remove all recyclable metal debris and ash debris with appropriate dust control measures. If feasible, once the metal debris and ash are removed, the concrete foundation or slab will be recycled. Prior to removal the slab or foundation may have to be decontaminated or pressure washed to ensure the concrete is not contaminated. The runoff from the decontamination will be collect and properly disposed. The concrete blocks may be disposed through South Tahoe Refuse, Inc to facilitate the removal;
- After all debris is removed from the site, the CONTRACTOR will remove 6 to 12 inches of soil from the structural impacted area. Additional excavation may be necessary around the foundation/slab to remove ash and debris. This area may be a combination of the foundation or slab footprint plus areas of structural ash debris from sheds. Once completed, the area will be tested to ensure residual contamination is removed;
- After all debris is removed the CONTRACTOR will complete the erosion control measures and storm water best management practices. The erosion control devices shall be installed and maintained using the specifications in this document that were provided by the Tahoe Regional Planning Agency. These specifications are only for the damaged/destroyed homes in the Angora Fire

Area. Note: Other best management practices may be used on a case by case basis as long as they are approval in writing by the Tahoe Regional Planning Agency; and

- The CONTRACTOR will also:
 - Prepare and submit a site specific health and safety plan to the El Dorado County, Environmental Management;
 - Perform Radiological screening on the ash and debris;
 - Perform Industrial Hygiene Air Monitoring for dust emissions, heavy metal, and asbestos;
 - Perform clean site confirmation sampling through an independent third party company; and
 - The CONTRACTOR will prepare a final report for each home site summarizing the results from the project.

2.1 Work Plan

The CONTRACTOR shall develop a work plan for the project. The plan should include, but are not limited to, project work elements, a project schedule, a cost estimate, a site specific injury and illness prevention plan, and any other required documents.

Work Plan shall include, but are not limited to, the following elements:

1. Introduction: Identify reference documents used to prepare the Work Plan, summarize the site visit and contacts made, and discuss problems encountered. Identify the disposal company, material sources, haul routes and other relevant information;
2. Project Supervision: Identify the CONTRACTOR's key personnel, include certificate if training, and phone contact numbers;
3. Project Work Elements: Briefly describe the removal methods for the project and other items as identified by these specifications to complete the remediation, including mobilization/demobilization, site utilities and facilities, permits, and temporary environmental controls, erosion control, etc. Include work hours and days for these elements of the project.
4. General Conditions and Special Provisions

5. Project Schedule: Prepare a time schedule beginning with start of mobilization through completion of demobilization. Provide a timeline for all major items of work.
6. Site Specific Injury and Illness Prevention Plan (IIPP): Prepare a site specific IIPP which identifies biological, physical and other hazards and provides for adequate and prescribed medical surveillance, site controls, monitoring, worker protection and training, decontamination, and emergency response procedures.

Table 2 supplies the disposal information to CONTRACTOR to assist in the removal of the debris from the Angora Fire. CONTRACTOR is responsible for contacting the individual companies below and determining if they are available and properly licensed.

Table 2. Disposal Matrix for Materials

Material	Disposal Contact or Facility
Ash and Debris	Contact South Tahoe Refuse Inc.
Demolition Debris (Damage Homes) Vegetation	Contact South Tahoe Refuse Inc. CONTRACTOR will be responsible for identifying the appropriate facility.
Metal Debris	Contact South Tahoe Refuse Inc.
Metal Discards (Appliances)	Freon Extraction is REQUIRED for refrigerators not damaged by the fire. Check with above metal recyclers to determine if they are in compliance with the Metallic Discard Act. Note: Furnaces shall be check for asbestos before disposal.
Vehicles and Trailers	Vehicles and/or trailers that <u>did not sustain</u> damage or vehicles and/or trailer that sustained minor damage may be left on the property provided the vehicle(s) to not become a nuisance per County and Local Codes.
Burned Vehicles and Trailers	If a vehicle or trailer has been burned, the vehicle or trailer will be treated as metal debris for rapid disposal. The CONTRACTOR shall ensure all the fluid has been removed from the vehicle and/or trailer before transport. All fluids from the vehicle and/or trailer shall be properly collected and disposed. Contact South Tahoe Refuse Inc.
Tires	Contact South Tahoe Refuse Inc.
Hazardous Waste	CONTRACTOR will be responsible for identifying the

appropriate facility.

Household Hazardous Waste (HHW)	<u>Unlikely.</u> The County of El Dorado has performed a HHW sweep of the impacted area. If HHW is discovered the HHW will be segregated by the CONTRACTOR to a temporary on-site storage. The CONTRACTOR will contact the El Dorado County, Environmental Management for collect and disposal.
Dead Animals	If dead animals are discovered, they will be disposed of with the ash and debris. Contact South Tahoe Refuse Inc.
UXO (Unexploded Ordinance)	<u>Unlikely.</u> With the high temperatures from a forested wildland fire the likelihood of discovering any UXO is remote. If UXO is discovered the CONTRACTOR shall notify El Dorado County, Environmental Management for proper disposal. Also small arms ammo may be found in the damaged homes. The CONTRACTOR shall notify El Dorado County, Environmental Management for proper disposal.
Radioactive Debris	<u>Unlikely.</u> All impacted lots will be screened for radiation before removal. If radioactive debris is encountered, the material will be isolated and the CONTRACTOR shall immediately notify El Dorado County, Environmental Management for proper disposal.
Medical Waste	<u>Unlikely.</u> If medical wastes are discovered, they will be properly bagged and transported to the appropriate facility by a properly licensed company.

2.1.1 Schedule

Prior to beginning work, CONTRACTOR shall submit a proposed schedule of operation.

2.1.2 Sequence of Operation

Scheduling and coordination of construction activity shall be the sole responsibility of CONTRACTOR within the following limitations:

- All work shall be performed between the hours of 8:00 A.M. to 6:00 P.M., Monday through Saturday.
- All construction equipment working within the residential zones shall maintain a speed of **15 mph or less.**

2.2 General Contractor Conditions

The CONTRACTOR for the structural debris removal shall have at a minimum a Class A, General Engineering Contractor's license with a Hazardous Substance Removal Certification (HAZ) issued within the State of California.

The Contractor shall also have a current company IIPP that meets the requirements of 29 CFR 1910.120(b). The IIPP shall apply to all employees involved in the Agreement. Each subcontractor involved in the Agreement shall also have a current company IIPP.

The Contractor shall at all times be responsible for the protection of its employees and the public. Review of the Contractor's IIPP by El Dorado County and/or the CIWMB staff shall in no way relieve the Contractor of responsibility for any aspect of its work, or for compliance with all Federal, State, and local laws pertaining to health and safety.

2.2.1 Notices

1. CONTRACTOR shall notify Underground Services Alert (USA) at least 48 hours prior to any excavation.
2. CONTRACTOR shall notify the local fire department prior to commencement of work.
3. CONTRACTOR shall notify the local power provider prior to removal of any damaged structure to verify the electrical power has been shut off.
4. CONTRACTOR shall notify the County of El Dorado, Environmental Management at least 48 hours prior to commencement of the removal project. CONTRACTOR will use caution around all trees.
5. If CONTRACTOR discovers household hazardous materials, the CONTRACTOR should contact the County of El Dorado, Environmental Management for removal.

2.2.2 Dust Controls

CONTRACTOR shall provide water to prevent dust nuisance at each site. Dust resulting from Contractor's performance of the work shall be controlled at all times during this project. Dust control shall not create a runoff problem.

2.2.3 Waste/Debris Load Controls

In order to protect public health and the environment and to ensure all the waste from the Angora Fire is properly tracked, all debris (e.g., ash, metal, concrete, other site wastes) shall be transported and disposed by South Tahoe Refuse Inc. The owner/CONTRACTOR is responsible for setting up an account at South Tahoe Refuse

Inc. The contact at South Lake Tahoe Refuse for the Angora Debris Project is Jeanne Lear at 530.542.8366 or e-mail at jlear@southtahoerefuse.com. All loads shall have a tracking system to indicate material leaving the site.

All loads shall be wetted down before leaving the site. All loads shall be covered with a tarp; this includes metal debris. Concrete loads are exempt from a tarp provided the loads are wetted prior to leaving. If concrete loads generate dust, then the loads must be wetted and tarpped.

2.2.4 Traffic Control

At a minimum the CONTRACTOR shall post "Construction Ahead" signs 300 feet in both directions of work zone to warn vehicle traffic of the removal work. Safety cones shall be placed along the work area to control site vehicle traffic.

2.2.5 Equipment Controls

All removal equipment supplied by the CONTRACTOR should have glass enclosures and weigh less than 65,000 lb. The goal is to use equipment that minimizes the impact to the local roadway while completing the removal. The local roads in the Angora area are not designed for overweight loads. For example, excavators should be smaller or equal to a 325 Caterpillar or equivalent and front end loaders should be small or equal to a 950 Caterpillar or equivalent.

2.2.6 Pavement and Drainage Projections

The CONTRACTOR at all times will protect the edge of pavement and county drainage features.

2.2.7 Track Out Controls

The CONTRACTOR shall prevent or account for equipment track out including waste loading. The CONTRACTOR shall remove the track out debris as soon as feasibly possible and at the end of every day. This debris will also be disposed of with the waste. A PM10-efficient street sweeper may be necessary if track out becomes an issue.

2.3 Safety

The CONTRACTOR shall, at all times, operate equipment and perform labor in a safe manner to ensure the safety of its employees and the public. CONTRACTOR must pay particular attention to operations around local road and take the necessary precautions. CONTRACTOR must note the number of power lines crossing the site, dead trees, chimneys, and all underground utilities.

The CONTRACTOR shall retain or employ a certified industrial hygienist to develop a site specific health and safety plan.

In addition to site specific plan, CONTRACTOR will designate eating areas and supply a hand and eye washer and mobile sanitary facilities for each project site.

2.3.1 Worker Safety

Given the ash contains elevated levels of heavy metals; an exclusion zone will be setup around the contaminated area during removal. All personnel entering this area will be initially required to wear level "C" protective attire. This level may be down graded based on industrial hygiene air sampling.

2.3.2 Industrial Air Monitoring

The CONTRACTOR shall use certified industrial hygienist to perform air monitoring for the duration of the project or until the industrial hygienist determines the site air monitoring may cease. The methods for the air monitoring are as follows:

- Fugitive Dust - El Dorado County Air Quality Management District, Rule 223 or other U.S. EPA approved equivalent methods for PM10 monitoring;
- Heavy Metals - National Institute for Occupational Safety and Health (NIOSH) Method 7300, Metal Scan; and
- Asbestos - National Institute for Occupational Safety and Health (NIOSH) Method 7402, High Volume.

2.3.3 Radiation Monitoring

While unlikely to be an issue, the CONTRACTOR shall perform a radiological survey around the impacted structures. The survey equipment should be design for general radiological surveying such as a Ludlum 2241 or equivalent. The use of civil defense radiological monitors is prohibited. The action level for this project is set at two times background. Should a level of 2x background be detected, the CONTRACTOR will isolate off the area and notify El Dorado County, Environmental Management.

2.4 Special Provisions

2.4.1 Foundation Verification

CONTRACTOR will contact El Dorado County Building Department and coordinate a foundation investigation. The purpose of the investigation is to determine the previous square footage of the home. Without the foundation measurements the owner may be

subject to permit fees other wise waived. The CONTRACTOR will be responsible for providing the measurements of the foundation, piers, sheds, or other structures to the County.

2.4.2 Appliance and Vehicle Recycling

CONTRACTOR or their subcontractor shall provide for removal and disposal of material, which may require special handling such as various automobile or appliance components.

Materials that must be removed from appliance and vehicles prior to crushing, baling or shredding for recycling include:

- Chlorofluorocarbons (CFCs) and hydrofluorocarbons (HCFCs) used as refrigerants.
- Polychlorinated biphenyls (PCBs) known to be contained within motor capacitors and fluorescent light ballasts.
- Used oils as defined in Article 13 of Chapter 6.5 of the Health and Safety Code (includes lubricating fluids, compressor oils, and transmission oils).
- Sodium azide canisters in unspent automobile air bags.
- Antifreeze in coolant systems.
- Mercury that may be found in thermometers, thermostats, barometers, electrical switches, and batteries.

The CONTRACTOR shall maintain accurate records detailing the removal and disposal operations involving all such materials, and shall provide the Environmental Management Department with all manifests and/or documentation pertaining to the work. Vehicles and appliances that were completely consumed by the fire will probably not contain any of the above items. The vehicles and appliances will be treated as metal debris and removed accordingly. All appliances and vehicles shall be securely covered (i.e. tarped or plastic wrapped) prior to and during transport.

2.4.3 Potential Earthwork

No more than 50 cubic yards of clean soil will be place on any one site without obtaining a grading permit from El Dorado County, Building Department. If fill material is necessary, the soil shall be placed in thin lifts and compacted per El Dorado County requirements.

2.4.4 Clean Site Confirmation Sampling

The Contractor shall use an independent third party company to collect confirmation samples and a California Sate Certified Laboratory to conduct confirmation sampling. The confirmation samples will be collected from the impacted structure area in native soil, at random locations, and analyzed for heavy metals (California Assessment Manual (CAM) 17 metals TTLC procedures, EPA Method 6010B).

A total of two confirmation samples per impacted area under 2000 sq feet will be collected. Should the area be greater than 2000 sq feet then one additional sample per 1000 sq feet of contamination (e.g., 3 per 3000 sq ft, 4 per 4000 sq ft, etc) will be collected.

The consultant's clean site confirmation data will be sent to El Dorado County Environmental Management Department for approval. The consultant's data will be compared to a background soil analysis report.

A cleanup goal of 2 to 3 times background metals for this structure debris project has been established by El Dorado County and the CIWMB. A natural soils background report for the Angora area is currently being completed by the CIWMB and will be available to the CONTRACTOR at no cost.

2.5 Erosion Control

Erosion control for this project is critical. Lake Tahoe's rain season begins on July 1 and at times rainfall can be heavy due to thunderstorms. Prior to the removal of the structure, some erosion control will be necessary to prevent the migration of contaminants off site. Work may consist of installing silt fences, fiber rolls, erosion control blankets and other erosion control Best Management Practices (BMPs) necessary for improving site stability. An example of this practice is presented in Figure 2. Also, typical drawings of the erosion control plans can be found in Figures 3 and 4. Erosion control work shall be performed in accordance with these specifications

2.5.1 Materials

- 2.5.1.1 Fiber Roll Barriers – Fiber roll barriers (also called sediment logs or straw wattles) are commercially manufactured and usually consist of milled wood or other natural fibers sewn into a circular weave fabric. Fiber rolls are good perimeter protection, designed to slow stormwater runoff and trap small amounts of sediment.

Fiber rolls shall be a minimum 12" diameter.

- 2.5.1.2 Erosion Control Blanket – Erosion control blanket is a manufactured blanket or mat that is designed to hold soil and seed in place on slopes. It consists of organic, biodegradable materials such as wood fiber, coconut fiber, or a combination of these materials. It is commercially manufactured and delivered to the site in rolls.

Erosion control blankets shall be 100% organic biodegradable (including parent material, stitching, and netting). The minimum thickness shall be 3/8" (9mm). The netting shall be stitched to prevent separation of the net from the parent material. The netting shall be capable of withstanding moderate foot

traffic without tearing or puncturing. Neither the netting, nor the installation, shall pose a safety risk to people walking on/crossing over it. Neither shall the blanket or netting pose a hazard to wildlife such as birds, reptiles and amphibians.

Appropriate products include, but may not be limited to:

- Curlex I Fibernet (American Excelsior)
- Curlex II Fibernet (American Excelsior)
- AEC Premier Straw Fibernet (American Excelsior)
- S 75 BD (North American Green)
- S 150 BN (North American Green)
- SC 150 BN (North American Green)
- C125 BN (North American Green)
- Excel S-2 All Natural (Western Excelsior)
- Excel SS-2 All Natural (Western Excelsior)
- Excel CS-3 All Natural (Western Excelsior)
- Excel CC-4 All Natural (Western Excelsior)

2.5.1.3 Silt Fence – Silt fence consists of a permeable filter fabric that is keyed into the ground and staked beyond the toe of a slope. The fabric pools runoff, causing entrained sediment to settle out behind the fence while water slowly filters through the fabric.

2.5.1.4 Anchors – Anchors are devices that secure erosion control materials such as fiber roll barriers, erosion control blankets, and silt fence in place.

For erosion control blankets, anchors shall be completely biodegradable, environmentally safe, and shall have no potential for soil and/or water contamination. Steel wire pins or staples will not be approved. Petroleum based plastics or composites containing petroleum based plastics will not be approved. Materials deemed to present a hazard from splintering or spearing will not be approved. Wood stakes or stakes manufactured from wood byproducts may be approved.

Appropriate products include, but may not be limited to:

- E-Staple (American Excelsior)
- CF Bio Staple (CFM Corp)
- Green Stake (Green Stake)
- Bio-Stake (North American Green)
- Enviro-Stake (ODC Inc)

For silt fence, anchor posts shall be at least 36" long. Steel posts should weigh no less than one pound per linear foot.

For fiber roll barriers, stakes shall be wooden and at least 18" long.

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- 2.5.1.5 Netting – Netting is a manufactured product intended to secure wood chips or pine needle mulch to the soil surface.

Netting shall be 100% organic biodegradable and may consist of paper, jute, or cotton netting. Netting material shall be approved by CIWMB staff prior to installation.

- 2.5.1.6 Gravel Bags – Gravel bags are intended to slow stormwater flows and trap sediment on paved surfaces. Gravel bags shall be filled with ¾" to 1½" *washed* rock. Bags filled with sand will not be approved.

2.5.2 Installation Standards

Erosion control BMP's installation as defined by the Tahoe Regional Planning Agency shall consist of furnishing and applying erosion control materials. The work includes proper material handling, area preparation, proper application of the erosion control materials and structures, and stand maintenance for the areas shown on the Plans.

- 2.5.2.1 Area Management – Construction/demolition materials shall be stored to the maximum extent possible on paved surfaces. When this is not possible, construction/demolition materials shall be stored on areas where a future structure or other hard impervious surface will be constructed, such as a future building foundation or driveway.

Construction/demolition vehicles shall remain on paved surfaces to the maximum extent possible. When this is not possible, construction/demolition vehicles shall be used in areas where rebuild of impervious surfaces will occur, such as building foundation or driveway locations.

At the end of every day, driveways and roadways shall be swept clean of debris. Debris shall not be swept into drop inlets or other stormwater conveyance structure.

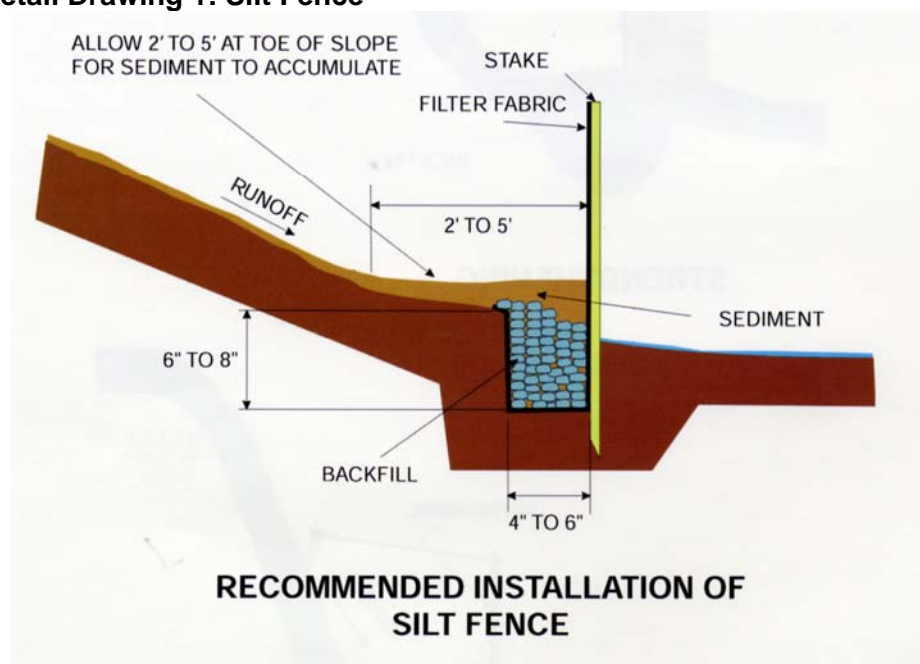
If an entrance/exit to a designated construction/demolition area is unpaved, it shall be stabilized with a 6" layer of crushed gravel rock to prevent sediment tracking onto paved roadways by vehicles.

All spoil piles shall be covered with a plastic sheet and held in place by weighted fiber rolls, gravel bags or other anchor.

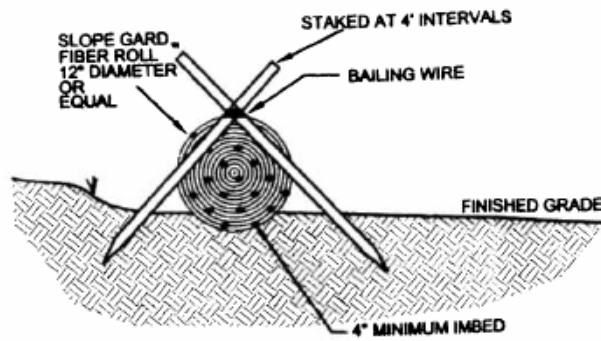
- 2.5.2.2 Soil Preparation – Soil preparation shall include all work necessary to prepare designated areas to receive the erosion control materials. Soil preparation work shall not be performed during periods of precipitation or saturated soil conditions and shall not result in excessive soil compaction.

- 2.5.2.3 Seeding – Seed shall be applied either mechanically or with hydraulic seeding equipment, at the option of the Contractor. The seed shall be distributed uniformly throughout the seeded area by hand. The basic seed mix will be TBA or equivalent.
- 2.5.2.4 Silt Fence – Install silt fences as directed by El Dorado County. Six inches of the fence shall be buried in a trench along the base of the fence. The posts shall be spaced a maximum of 10 feet apart and driven 18” into the soil or to refusal. Sediment shall be removed from the up-slope side of the fence when it reaches 1/3 the height of the fence. Refer to standard detail “Silt Fence” below.

Figure 2. Detail Drawing 1: Silt Fence

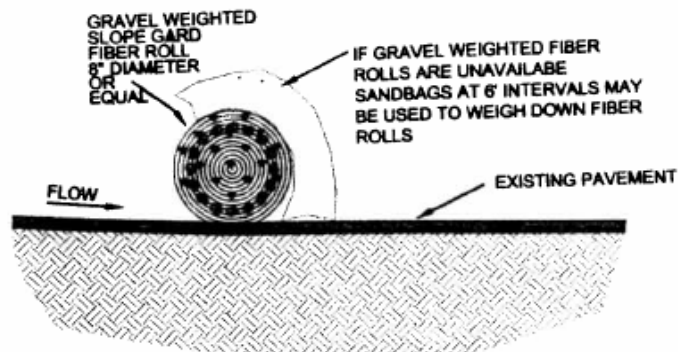


- 2.5.2.5 Erosion Control Blanket – Install erosion control blankets as directed by the engineer. Starting at the top of the slope, anchor the blanket in a 6-inch trench, backfill, and securely tamp the backfilled soil. Unroll blanket downslope overlapping parallel and subsequent blankets a minimum of 4 inches. Secure blankets with anchors along the overlaps and place a minimum of 3 anchors per square yard. The Contractor shall determine if more anchors are required and shall be responsible for installing the erosion control blanket so that it will stay in place.
- 2.5.2.6 Fiber Roll Barriers – Install fiber roll barriers as directed by El Dorado County. Place the fiber roll barrier in a 4-inch trench perpendicular to the flow path of stormwater. Drive stakes on either side of the roll and bind together with bailing wire. Refer to standard detail “Fiber Roll” below.



FIBER ROLL PLACEMENT **PERVIOUS INSTALLATION**

- 2.5.2.7 Gravel Bags – Gravel bags or weighted fiber rolls shall be placed on the downslope edge of impervious surfaces, such as driveways. Place gravel bags in double row in a “U” shape.



FIBER ROLL PLACEMENT **IMPERVIOUS INSTALLATION**

Figure 3. Typical Drawing A: Parcel with no standing dead trees.

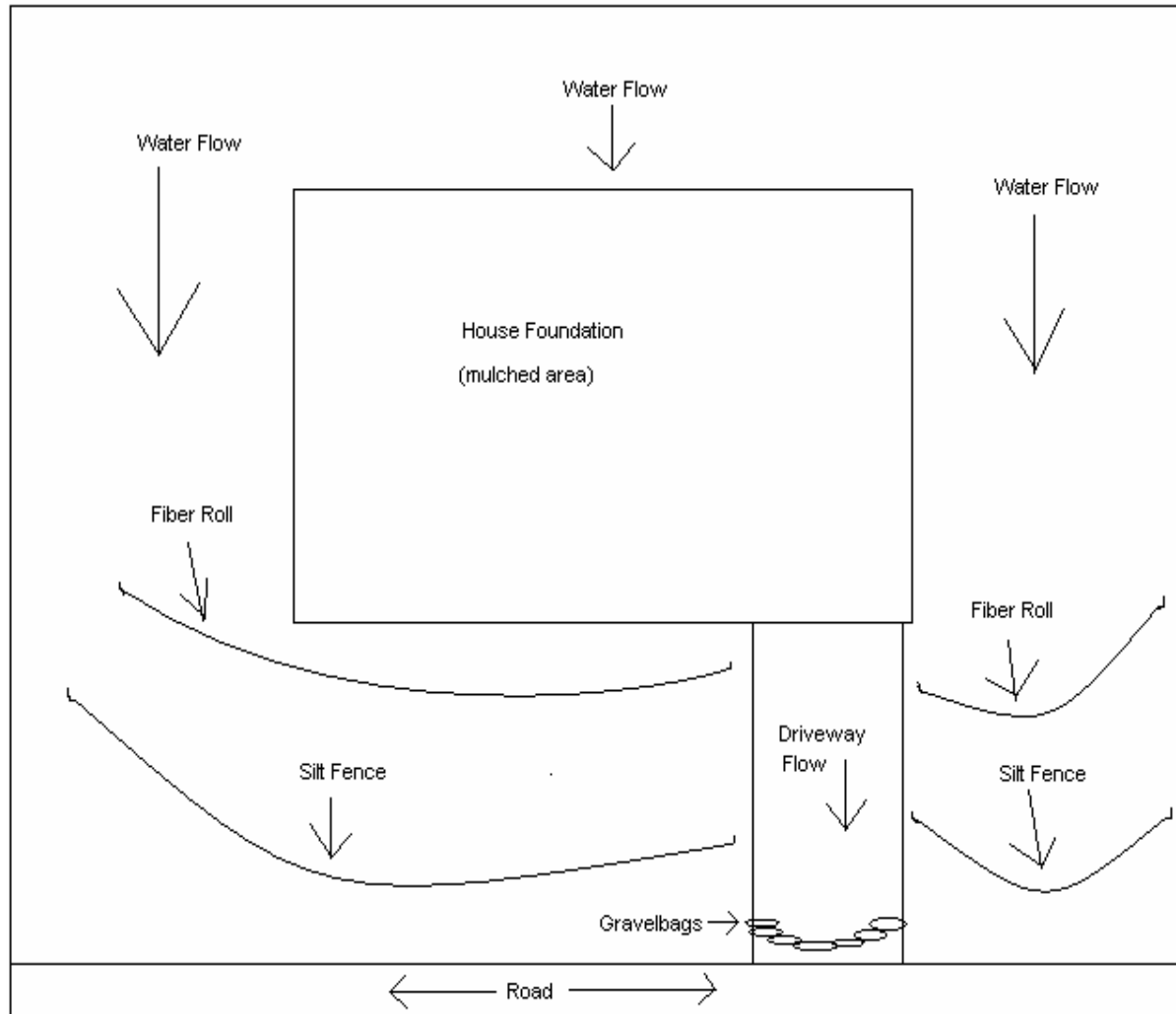
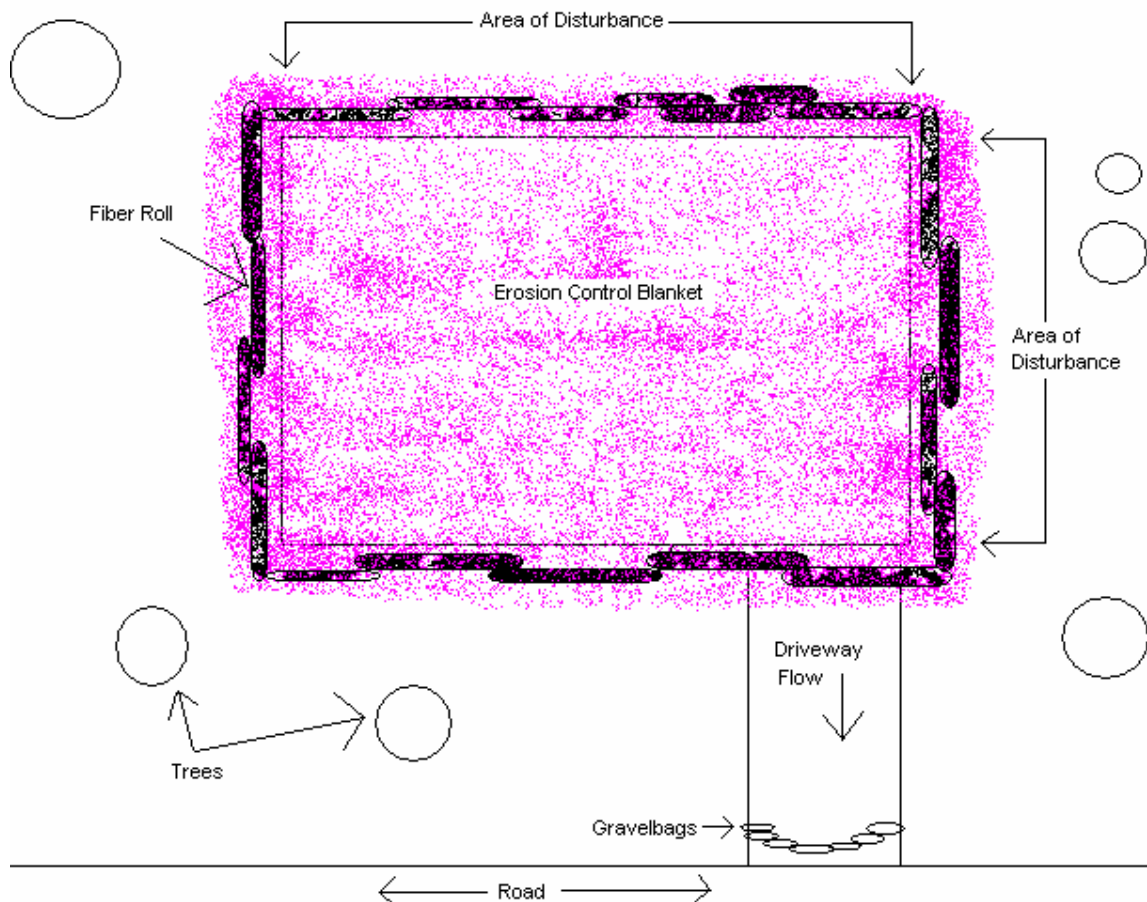


Figure 4. Typical Drawing B: Parcel with trees.



Sources:

Erosion Control Product Acceptability Lists for Multi-Modal Applications, Wisconsin Department of Transportation, June 2007.

Wildfire Rehabilitation Assistance, Wildfire Rehabilitation Fact Sheets, Natural Resources Conservation Service

2.6 Permits

To provide an understanding of the permits and requirements necessary for owner/CONTRACTOR to obtain approval for the project, Table 3 is presented. **The controlling permit for the debris removal shall be the Remediation Permit from El Dorado County, Environmental Management. Please obtain this permit last.**

Table 3. Permit Matrix

Permit and Agency	Responsibility	Contact/Comments
Demolition Permit	CONTRACTOR	The CONTRACTOR will obtain a demolition permit from El Dorado County

Grading	Not Applicable if under 50 cubic yard of import	Soil import will be kept to a maximum of 50 cy per home. If additional soil is necessary a grading permit is required
Road Encroachment	CONTRACTOR	The CONTRACTOR will contact the County of El Dorado, Department of Transportation to obtain
Traffic Control	CONTRACTOR	A minimum of two orange construction warning signs "Construction Ahead" and cones. Additional control device may be necessary based on location
Water Meter Permit	CONTRACTOR	CONTRACTOR shall obtain the necessary water meter permit for dust suppression. Please contact South Lake Tahoe Utility District at 530-544-6474.
Denial of Right-to-Entry	OWNER	Owner must sign before Waste Removal permit is granted.
Remediation Permit [Note: Obtain Last]	CONTRACTOR	The CONTRACTOR will obtain a Remediation Permit from El Dorado County, Environmental Management Dept. The owner and/or CONTRACTOR will sign and acknowledge the requirements
Asbestos Notification	Not Applicable	Exempt per Executive Order S-09-07. Also, residential buildings having four or fewer dwelling units are exempt from the notification process
Grading	Not Applicable if under 50 cubic yard of import	Soil import will be kept to a maximum of 50 cy per home. If additional soil is necessary a grading permit is required
California Environmental Quality Act	Not Applicable	Emergency work as describe in Executive Order S-09-07
1601 Stream Alteration, Dept. of Fish and Game (DFG)	Not Applicable	If work includes ash and or debris removal from a blue line stream, then the CONTRACTOR will immediately contact the County of El Dorado, Environmental Management. If it is determined that debris needs to be removed from the stream, the County of El Dorado, Environmental Management will contact the Department of Fish and Game
Storm Water Pollution Prevention Plan-RWQCB	Not Applicable	Exempt per Executive Order S-09-07, however Best Management Practices for erosion control will be required
Hazardous Waste	CONTRACTOR	If hazardous waste is discovered, CONTRACTOR shall use the appropriate licensed hazardous hauler and disposal facility

3 Project Completion

To ensure the project was successful in meeting its removal objective, the CONTRACTOR will submit a final report with the foundation footprint, waste tonnages, air monitoring data, and confirmation data to El Dorado County, Environmental Management for approval. The confirmation data will be compared to a background soil analysis report. Should the metal results fall below 3x background the project will be approved for rebuilding.

3.1 Documentation

The CONTRACTOR is required to submit a final report summarizing project data.

APPENDIX A
OFFICE OF THE GOVERNOR
EXECUTIVE ORDER S-09-07

The executive order can be found at

<http://gov.ca.gov/index.php?executive-order/6846/>

APPENDIX B

DENIAL OF RIGHT-OF-ENTRY

The form can be found at

<http://www.co.el-dorado.ca.us/Angora/pdf/DenialofRightofWay.pdf>